

GENERIC · POWERTRAIN

P0ABC

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0ABC

Hybrid/EV Battery Pack Voltage Sense A Circuit Low

P0ABC indicates that the hybrid or electric vehicle battery pack voltage sense circuit A is reporting a voltage lower than the manufacturer's expected range. The battery energy control module monitors this circuit to ensure accurate cell voltage readings, and it sets the code when the signal falls below the calibrated threshold, which can affect battery management and charging strategy.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or hybrid system warning light
- Reduced electric-only driving range or power output
- The vehicle may enter a limp mode or fail to start in some cases
- Inaccurate state-of-charge or battery gauge readings
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Faulty voltage sense wire or connector at the battery pack (open, high resistance, or short to ground)
- 2 Poor terminal tension or corrosion at the voltage sense connector
- 3 Failed voltage sense circuit within the battery pack harness
- 4 Internal fault in the battery energy control module or voltage sensing hardware
- 5 Damaged cell voltage sensor or sensing board inside the battery pack
- 6 Water intrusion or contamination affecting the sense circuit
- 7 Aftermarket accessories or improper previous repairs disturbing the circuit



How to diagnose and fix it

- 1 Inspect the voltage sense circuit wiring and connectors for damage, corrosion, or loose pins
- 2 Measure resistance and voltage drop on the sense circuit to verify integrity
- 3 Compare the reported voltage sense A reading with a known-good multimeter measurement at the battery pack
- 4 Check for technical service bulletins or software updates for the battery energy control module
- 5 Repair or replace the faulty wiring, connector, or sensor as needed
- 6 Clear the code and perform a road test to confirm the repair
- 7 If the fault persists, follow the manufacturer's diagnostic flow for internal battery pack or module testing

When the sense circuit lies about voltage

- A low voltage sense reading does not always mean the battery pack is actually low; the sense circuit itself can report a false low voltage due to high resistance or a poor connection.
- Intermittent faults often occur due to vibration or temperature changes affecting connector tension, so a wiggle test of the harness while monitoring live data can reveal the problem.
- The battery energy control module may use multiple voltage sense circuits for redundancy, and a single low circuit can trigger the code even if overall pack voltage is normal.
- Aftermarket electrical accessories or improper jump-starting can backfeed the sense circuit and cause a low voltage code without any permanent damage.
- Always verify the battery pack voltage with a calibrated meter before condemning the battery pack, as misdiagnosis can lead to unnecessary and costly replacements.

Can I keep driving with P0ABC?

It is generally safe to drive with this code if the vehicle operates normally, but avoid aggressive driving or long trips until diagnosed, as the fault may affect battery management and could lead to reduced performance or a no-start condition.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter with low-resistance measurement
- Wiring diagram and service information for the specific vehicle
- Insulation piercing probes or back probe pins
- Battery pack service plug removal tools (if required)



Reading P0ABC

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
A	Hybrid propulsion.
BC	The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A1F** Battery Energy Control Module A Performance · **P0ABD** Hybrid/EV Battery Pack Voltage Sense A Circuit High · **P0ABE** Hybrid/EV Battery Pack Voltage Sense A Circuit Intermittent/ · **P0AFA** Hybrid/EV Battery System Voltage Low

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0abc/>

